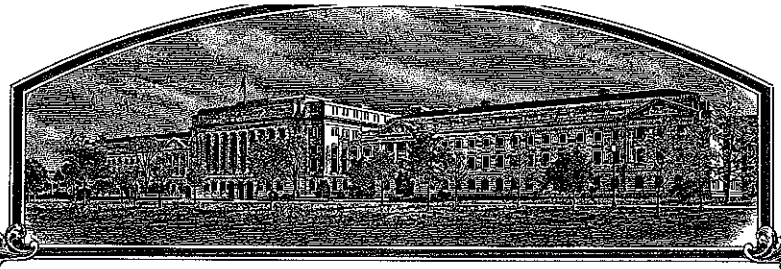
No. 9900261



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Saka - Ragis Pflanzenzucht GbR

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR PORTING IT, OR EXPORTING IT, OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE VE PURPOSES, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT ED BY THE PLANT VARIETY PROTECTION ACT. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

POTATO

'BALTICA'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of Washington, D.C. this ninth day of April, in the year two thousand and seven.*

Attest:

Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

Secretary of Agriculture

BUREAU OF ENGRAVING AND PRINTING

REPRODUCE LOCALLY. *Include form number and date on all reproductions.* FORM APPROVED - OMB NO. 0581-0

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE DIVISION - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act 1974 (5 U.S.C. 552a).

Application is required in order to determine if a plant variety protect certificate is to be issued (7 U.S.C. 2421). Information is held confiden until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) *(as it is to appear on the Certificate)*
Saka-Ragis Pflanzenzucht GbR

2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER
90-214-2

3. VARIETY NAME
BALTICA

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP Code, and Country)*
Kielortallee 9
D-20155 Hamburg
Fed. Rep. of Germany

5. TELEPHONE *(include area code)*
++(49)-40-446167

6. FAX *(include area code)*
++(49)-40-417716

FOR OFFICIAL USE ONLY

PVPO NUMBER
9900261

FILING DATE
4-19-99

FEES RECEIVED
FILING AND EXAMINATION FEE: $2450.00
DATE 4-19-99
CERTIFICATION FEE: 768.00
DATE 02-28-2007

7. GENUS AND SPECIES NAME
Solanum tuberosum L.

8. FAMILY NAME *(Botanical)*
Solanacea

9. CROP KIND NAME *(Common name)*
Potato

10. IF THE APPLICANT NAMED IS NOT A "PERSON", GIVE FORM OF ORGANIZATION *(corporation, partnership, association, etc.)* *(Common name)*
Partnership

11. IF INCORPORATED, GIVE STATE OF INCORPORATION

12. DATE OF INCORPORATION

13. NAME AND ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS
Mr. John Thomas Dusing
Hanse Seed Corp.
803, Nadina Dr.
Weston, FL 33327
10/19/2005 per letter LMC

14. TELEPHONE *(include area code)*
(612) 445 8090

15. FAX *(include area code)*
(612) 496 0205

16. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED *(Follow instructions on reverse)*

a. ☒ Exhibit A. Origin and Breeding History of the Variety
b. ☒ Exhibit B. Statement of Distinctness
c. ☒ Exhibit C. Objective Description of the Variety
d. ☒ Exhibit D. Additional Description of the Variety
e. ☒ Exhibit E. Statement of the Basis of the Applicant's Ownership
f. ☒ Voucher Sample *(2,500 viable untreated seeds or, for tuber propagated varieties verification that tissue culture will be deposited and maintained in a public repository)*
g. ☒ Filing and Examination Fee ($2,450), made payable to "Treasurer of the United States" *(Mail to PVPO)*

17. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY, AS A CLASS OF CERTIFIED SEED? *(See Section 83(a) of the Plant Variety Protection Act)?*
☒ YES *(If "yes," answer items 18 and 19 below)* ☒ NO *(If "no," go to item 20)* 06/18/02 TNP PER LETTER

18. DOES THE APPLICANT SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?
☒ YES ☐ NO

19. IF "YES" TO ITEM 18, WHICH CLASSES OF PRODUCTION BEYOND BREEDER SEED?
☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

20. HAS THE VARIETY OR A HYBRID PRODUCED FROM THE VARIETY BEEN RELEASED, USED, OFFERED FOR SALE, OR MARKETED IN THE U.S. OR OTHER COUNTRIES?
☒ YES *(If "yes," give names of countries and dates)* ☐ NO
offered for sale first: ~~spring 1998~~ March 20, 1998 Sept 16, 2005 LMC Per letter & INVOICE

21. The applicant(s) declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate.

The undersigned applicant(s) is(are) the owner(s) of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.

SIGNATURE OF APPLICANT
SAKA-RAGIS PFLANZENZUCHT GbR

NAME *(Please print or type)*
(Wolfgang Philipp)

CAPACITY OR TITLE
Managing Director

DATE
23.03.1999

SIGNATURE OF APPLICANT *(Owner(s))*

NAME *(Please print or type)*

CAPACITY OR TITLE

DATE

SD 470 [illegible]

9900261

INSTRUCTIONS

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in PVPO: (1) Completed application form signed by the owner; (2) completed Exhibits A, B, C, E; (3) at least 2,500 viable untreat seeds, or for tuber reproduced varieties verification that a viable *(in the sense that it will reproduce an entire plant)* tissue culture v be deposited and maintained in a public repository prior to issuance of a certificate; (4) check drawn on a U.S. bank for $2,4 ($300 filing fee and $2,150 examination fee), payable to "Treasurer of the United States" *(See Section 97.175 of the Regulatio and Rules of Practice.)* Partial applications will be held in the PVPO for not more than 30 days, then returned to the applicant unfiled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 103 Baltimore Blvd., Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are s explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use maski materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the Unit States" in the amount of $300 for issuance of the Certificate.

Plant Variety Protection Office
Telephone: (301) 504-5518

ITEM

16a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method;

(2) the details of subsequent stages of selection and multiplication;

(3) evidence of uniformity and stability; and

(4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified.

16b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:

(1) identify these varieties and state all differences objectively;

(2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences;

(3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.

16c. Exhibit C forms are available from the PVPO for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.

16d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.

16e. Section 52(4) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. The applicant may be the actual breeder, the employee of the breeder, the owner through purchase or inheritance, etc.

17. If "Yes" is specified *(seed of this variety be sold by variety name only, as a class of certified seed)*, the applicant may NOT reverse this affirmative decision after the variety has been sold and so labelled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. *(See P.L. 103-349 for additional information.)*

20. See Sections 41, 42, and 43 of the Act and Section 97.175 of the regulations for eligibility requirements.

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment is specified in Section 97.175 of the regulations. *(See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of Regulations and Rules of Practice.)*

To avoid conflict with other variety names in use, the applicant should check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center–East, Beltsville, MD 20705. Telephone: (301) 504-8089.

09900261

SaKa-Ragis Pflanzenzucht GbR

· SaKa-Ragis Pflanzenzucht GbR · Postfach 113149 · 20431 Hamburg ·

Pickhuben 2
20457 Hamburg
Tel +49(0)40 414236-0
Fax +49(0)40 44 85 85
info@saka-ragis.de
www.saka-ragis.de

BALTICA

Explantion

First Sales of BALTICA in Europe

BALTICA was registered in Germany in February 1997. Already in 1995 a minituber production of that variety had been initiated in our breeding station in Windeby. This material was given to our company owned farms in Mecklenburg-Vorpommern for further multiplication. The first lot was sold to a client in Spain by our export company SOLANA AGRARPRODUKTE GmbH & Co KG in early 1998 (Date of invoice March 20,1998). A copy of the invoice is attached to this statement.

Signature _____
Waldemar Schuller, Managing Director

Hamburg, 15.09.2005

Saka – Ragis Pflanzenzucht GbR
Pickhuben 2
D-20457 Hamburg
Germany
Tel.: (+49)-40-41 42 40 0
Fax.: (+49)-40-41.77.16
E-Mail: info@Saka-Ragis.de

09900261

SOLANA AGRAR-PRODUKTE GMBH & CO.KG HAMBURG

SOLANA AGRAR-PRODUKTE – Kielortallee 9 D-20155 Hamburg Germany

Jose Diaz Gonzales
Bda. Juan XXIII, 8
41850 Villamanrique Condesa
ESPANA

Kielortallee 9
D-20155 Hamburg
Fed. Rep. of Germany
Phone (40) 41 42 40-0
Fax (40) 41 77 16
e-mail: info@solana.de
Internet: www.solana.de
VAT-ID-No. DE 118285738
Fiscal No. 24/141/01851

F A C T U R A #304379-1

fecha	: 20.03.1998
no. del cliente	: 101625
referencia No.	: 9798/270/1-1 SIR
su orden del	: 26.01.1998
nuestro No. CIF	: DE 118285738
su No. CIF	: ES 27288766W

fecha de carga : 26.01.1998
camion : LOS-SY-725
estacion de carga : WESSELBUREN
origen : Republica Federal de Alemania

PATATAS DE SIEMBRA CERTIFICADAS, CLASE A				
60 qt *	BALTICA 35/50 mm 120 sacos cada uno 50,0 kg neto	ESP 7500,00/qt *	= ESP	450.000
	VALOR TOTAL		ESP	450.000

peso total : 6.000,0 kg neto 6.060,0 kg bruto
entrega : entregado CPT, impuestos y derechos no pagados
envio por : camion
pago : conforme a las condiciones fijadas en el contrato de entrega

El vendedor se reserva el dominio de la mercancia objeto de la presente factura hasta tanto el cliente no haya satisfecho el total importe de la misma.

Esta entrega es efectuada segun § 4 No. 1 en conexion con § 6a UStG libre de impuestos como EU entrega.

Annex to EXHIBIT A: ORIGIN AND BREEDING HISTORY OF THE VARIETY

Specific Problem Area 11

As the potato plant is tetraploid, the genetic variation of the progenies coming out of a crossing between two genotypes is enormous. All progenies are very much distinct and also very much distinct from the parents. The further multiplication of the progenies goes via the tubers, which is a clonal multiplication without any further genetic modification of the progenies.

As stated in our Exhibit A variety BALTICA is one of the progenies from a crossing of the varieties Agria x Van Gogh. Following we give you the Bundessortenamt description of BALTICA in comparison with AGRIA and VAN GOGH:

	BALTICA	AGRIA	VAN GOGH
Leaf: intensity of green color	**light to medium**	dark	medium to dark
Leaflet: glossiness of the upperside	**medium**	dull	medium
Flower corolla: color of inner side	**white**	white	white
Plant: frequency of flowers	**high**	high	high
Stem: extension of anthocyanin coloration	**absent or very weak**	medium	medium
Tuber: shape	**oval**	long-oval	oval
Tuber: color of skin	**yellow**	yellow	yellow
Tuber: smoothness of skin	**medium**	medium	rough
Tubers: depth of eyes	**shallow**	shallow	shallow to medium
Tuber: color of flesh:	**light yellow**	yellow	light yellow

Origin and Breeding History of the variety B A L T I C A

Applicant:	Saka-Ragis Pflanzenzucht GbR Kielortallee 9 D - 20108 Hamburg
Species:	potato / Solanum tuberosum L.
Variety:	BALTICA
PVPO number:	EU 2669 (European Union)

5. Number of generation over which stability and uniformity have been observed:

Stability and uniformity of potato variety BALTICA has been officially proved at the Bundessortenamt, Hannover, annually since the first DUS trial in 1994 (until now - Feb. 1999 - 5 years.

6. Breeding history:

BALTICA

Agria x van Gogh

Senlo x Quarta ZPC 69 C x Gloria

8. Off-types and variants:

The variety BALTICA is stable and uniform without showing any variants and off-types.

9. Selection criteria:

early salad variety, high yielding, excellent taste and suitability for French fry production.

earliness, high yield, firm cooking texture, good taste, good storing ability, tolerant to bruising, damage, etc., flesh colour: light yellow, excellent frying colours.

resistances: potato cyst nematodes Ro1 and Ro4

good field tolerance against: virus disease PVY, PVA
rhizoctonia, blackleg, Phytophtora infestans (tubers), common scab, internal rust spot

10. Breeding method:

cross breeding, maintenance by clonal selection and microplant propagation.

Statement of distinctness

13. The variety most similar to BALTICA

The potato variety BALTICA is distinct from the variety Bintje.

The shape of the lightsprout of BALTICA is conical with a red violet anthocyanin coloration of the base, whereas the shape of the lightsprout of Bintje is ovoid, with a blue violet anthocyanin coloration of the base.

BALTICA has an early maturity, whereas Bintje is early/medium early.

The leaves of BALTICA have a light/medium intensity of green colour, whereas Bintje has dark green leaves. BALTICA has medium/large leaflets and Bintje has small/medium leaflets

BALTICA has a high frequency of flowers, Bintje has a low/medium frequency of flowers.

17. Reasonable evidence to support claim of distinctness for the variety BALTICA:

The Bundessortenamt uses reference varieties for the various morphological characters of a potato variety. Quantitative characters such as plant size, maturity etc. are given as numerical marks following the „UPOV Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability".

The variety BALTICA was proved to be distinct from all other potato varieties in Germany and all other member states of UPOV in 1997. The Bundessortenamt registered BALTICA under reference number K 3555. It has been protected in the European Union on 16.02.1998 under reference number EU 2669. The DUS results are available at:

Bundessortenamt
Postfach 61 04 40
30604 Hannover

Telephone: ++(49) - 511 - 95 66 5
Fax: ++(49) - 511 - 56 33 62

09900261

SaKa-Ragis Pflanzenzucht GbR

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Pickhuben 2
20457 Hamburg
Tel +49(0)40 41 42 36-0
Fax +49(0)40 44 85 85
info@saka-ragis.de
www.saka-ragis.de

Crop, Variety: POTATO, „ BALTICA" PV # 9900261

Exhibit B: Statement of distinctness

Anthocyan coloration of lightsprout of the potato variety BALTICA in comparison to the coloration of its parents AGRIA and VAN GOGH and its most similar varieties JETTA, MIRA and RENATE (mentioned in UPOV description):

Variety	Anthocyan coloration of lightsprout (RHS Colour Chart)
BALTICA	81 A
AGRIA	86 A
VAN GOGH	77 A
JETTA	71 A
MIRA	70 A
RENATE	72 A

(the colour chart values refer to the "ROYAL HORTICULTURAL SOCIETY (RHS) COLOUR CHART", Edition 1995, Published by the Royal Horticultural Society, 80 Vincent Square, London SW1P 2PE, UK)

Signature _____
Waldemar Schuller, Managing Director

Hamburg, 15.09.2005

Saka – Ragis Pflanzenzucht GbR
Pickhuben 2
D-20457 Hamburg
Germany
Tel.: (+49)-40-41 42 40 0
Fax.: (+49)-40-41.77.16
E-Mail: info@Saka-Ragis.de

Objective Description of the Variety

18. Description of the subject variety:

See enclosed description according to the „UPOV Guidelines for the Conduct of Tests for Distinctness, Homogeneity and Stability".

19. See enclosed photographs of a typical tuber and of the lightsprout.

20. Leaf colour: Royal Horticultural Society Colour Chart Value - 144A

Natural Maturity evaluated relatively to standard varieties

Year	Location	Baltica	Bintje
1993	WIN	4,0	5,0
1994	GRA	4,0	5,0
1994	WIN	3,0	5,0
1996	GRA	4,0	4,0
1996	NIE	5,0	4,0
1996	WIN	3,0	5,0
1997	GRA	5,0	5,0
1997	NIE	3,0	4,0
1998	GRA	4,0	4,0
1998	WIN	3,5	5,0
1999	DUE	4,0	4,0
1999	GRA	4,5	5,0
1999	WIN	3,0	5,0
2000	DUE	3,5	5,0
2000	GRA	3,0	4,0
2000	WIN	4,0	4,0
2001	DUE	4,0	4,0
2001	GRA	4,0	5,0
2001	WIN	4,0	5,0
2002	DUE	4,0	5,0
2002	GRA	4,0	5,0
2002	WIN	4,0	5,0
2003	DUE	4,0	5,0
2003	GRA	4,0	5,0
2003	WIN	3,5	4,5
2004	DUE	3,0	4,0
2004	GRA	5,0	5,0
2004	WIN	4,0	5,0
2005	DUE	4,0	5,0
2005	GRA	4,0	5,0
2005	WIN	3,5	5,0
	Mean	3,861	4,750

scores:

1= very early
3= early
5 = medium early
7= late
9= very late

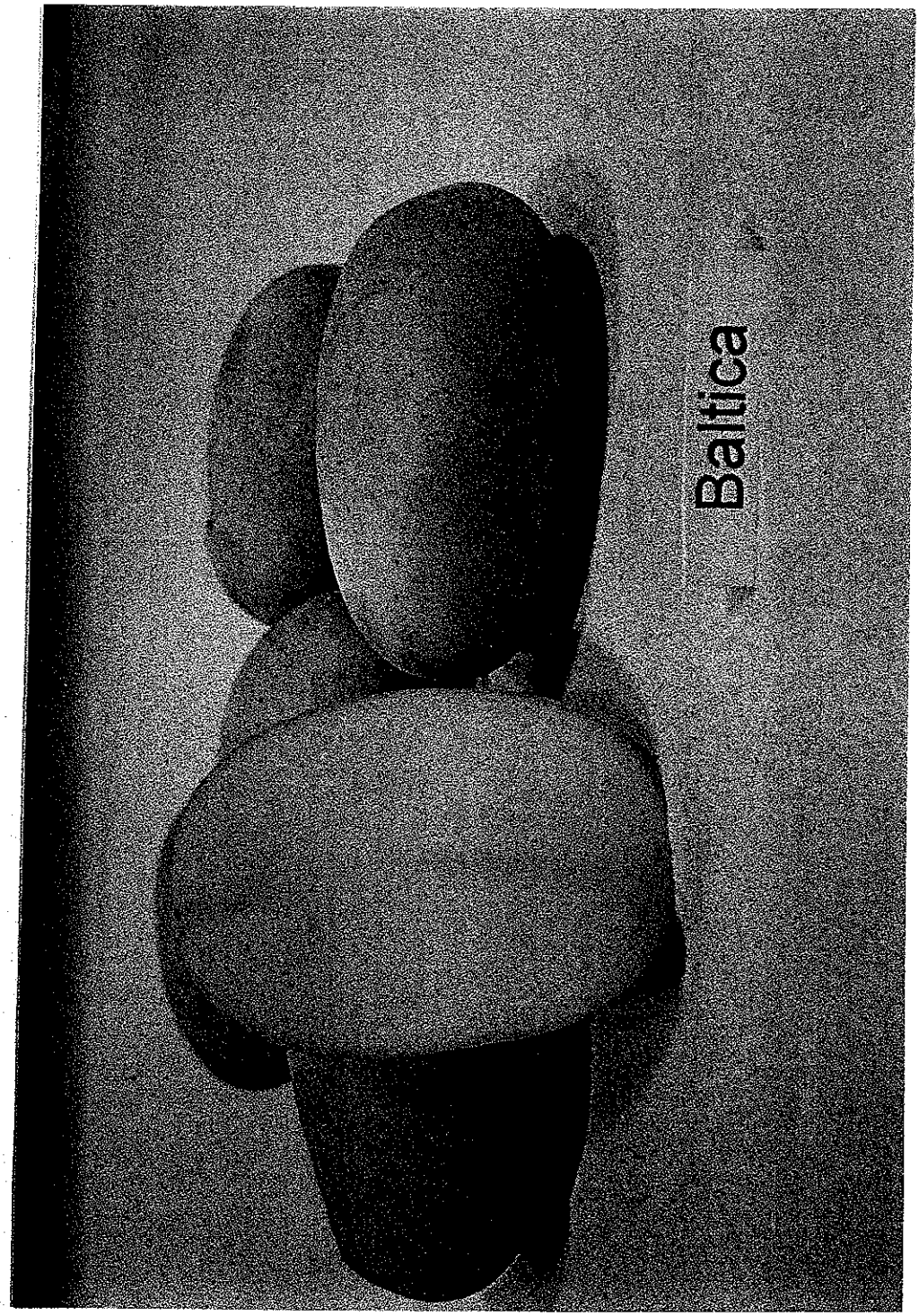
Location

WIN	Windeby in Northern Germany
GRA	Gransebieth in Northern Germany
NIE	Niederarnstadt in Southern Germany
DUE	Duellstadt in Northern Germany

Friedmans ANOVA und Kendalls Konkordanzkoeff. (reifef.sta)
ANOVA Chi² (N = 31, FG = 1) = 20,16667 p < ,00001
Konkordanzkoeffizient = ,65054 Mittl.Rang r = ,63889

	Mittl. Rang	Rang-summe	Mittelw.	Stdabw.
BALTICA	1,14516127	35,500	3,85483909	0,56559032
BINTJE	1,85483873	57,500	4,69354868	0,45966321

Friedman statistics shows, that Baltica is high significantly earlier than Bintje



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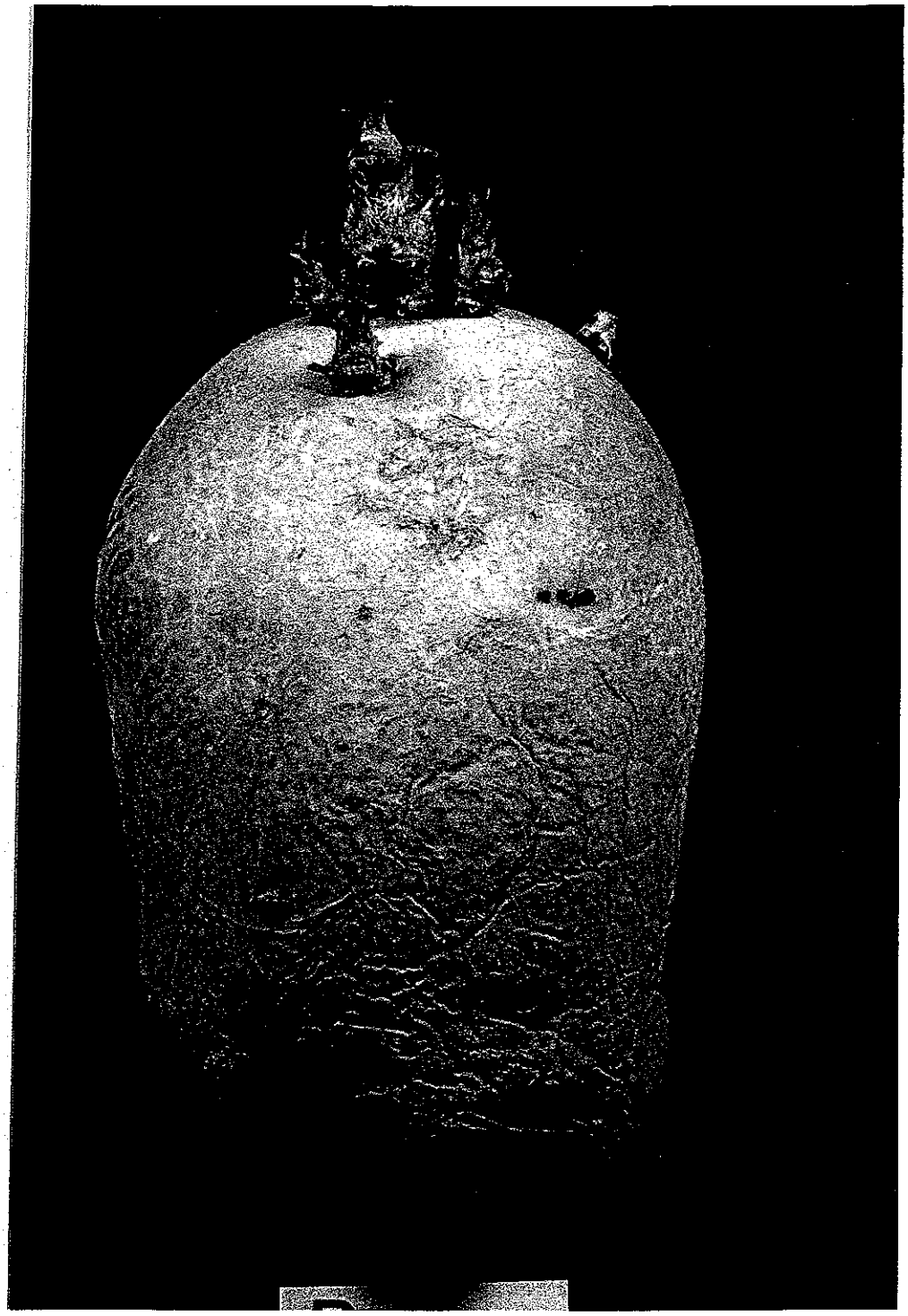

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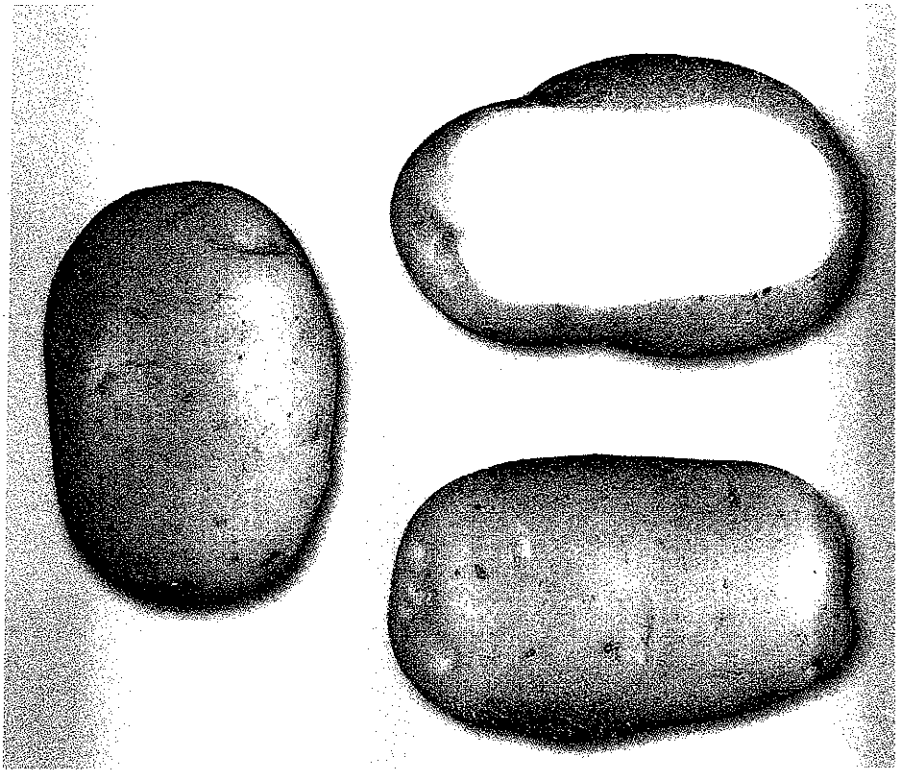
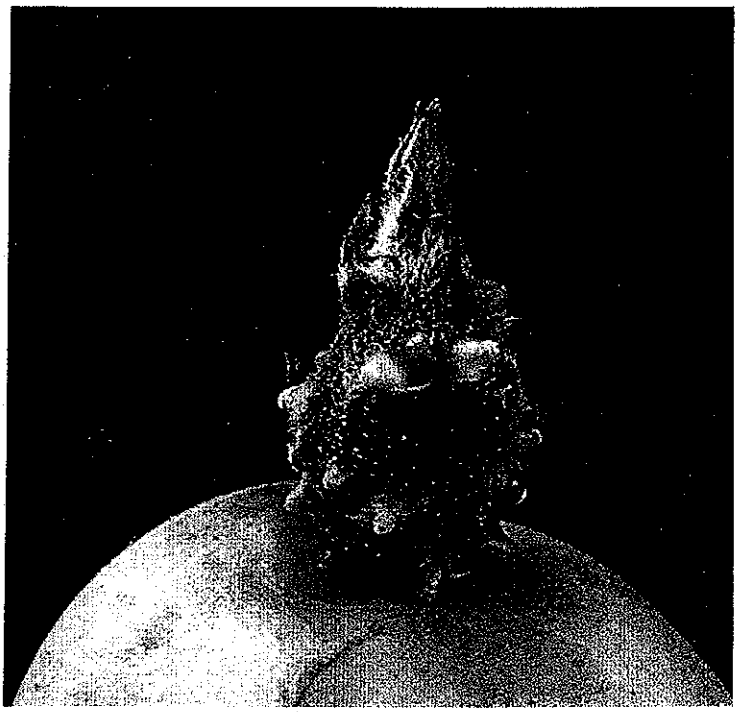
RECEIVED 08/06/99

13

BINTJE





U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY
PLANT VARIETY PROTECTION OFFICE
BELTSVILLE, MD 20705

Exhibit C

OBJECTIVE DESCRIPTION OF VARIETY
Potato (*Solanum tuberosum* L.)

INSTRUCTIONS

The Objective Description Form:
The objective description form lists characteristics to be used as the basis for developing the description of potato varieties. It is designed to guide the applicant in describing a variety in detail so a meaningful comparison with other potato varieties can be accomplished. It is recommended that this form be completed in as much detail as possible to ensure an accurate description. Please fill in the requested data and place the appropriate number that describes the varietal characters typical of this potato variety and the reference varieties in the respective boxes.

Test Guidelines:
Any statistical and trial (field test) data that may be necessary to support the variety description should be attached to this form. Please include for trial data the plot size, number of replications, number of plants, plant spacing, trial locations and growing periods. Trials should normally be conducted at one place, in the region that the variety has been adapted for, with a minimum of one growing period in the United States. All comparative data should be determined from varieties entered in the same trials. The size of the plots should be such that plants or parts of plants may be removed for measuring and counting without prejudice to the observations which must be made at the end of the growing period. As a minimum, each test should include a total of 60 plants which should be divided between two or more replicates. Separate plots for observation and measuring can only be used if they have been subject to similar environmental conditions. To determine color for a plant or plant parts a recognized standard color chart must be used such as the Royal Horticultural Society (RHS) Color Chart or Munsell Color Chart (MCC).

Reference Varieties:
The application variety should be compared to at least one reference variety preferably a set of reference varieties. The reference varieties should be market class standard varieties currently grown in the United States and or the variety (ies) most similar. The following varieties are recommended as market class standards to be used as reference varieties:

Yellow-flesh table-stock	Yukon Gold
Round-white table-stock	Superior
Chip-processing	Atlantic, Snowden, Norchip
Frozen-processing	Russet Burbank
Russet table-stock	Russet Burbank, Russet Norkotah, Goldrush
Red table-stock	Red Pontiac, Red Norland, Red Lasoda

If the applicant does not use one of the recommended reference varieties by the PVP office, a complete description of the reference variety should be submitted by the applicant (Exhibit C).

Characteristics:

Light sprout characteristics are supplied in **Figure 1**. The plant type and growth habit characteristics are collected at early first bloom. **Figure 2** is supplied to help visualize the growth habit. For this descriptor, look at the stems rather than the stems and foliage. Plant maturity is measured at natural vine senescence.

Stem characteristics are also collected at early bloom. Stem anthocyanin coloration is divided into two descriptors: Location and intensity. **Figure 3** is supplied to give an example of stem wings.

Leaf characteristics are observed at early first bloom. Fully-developed leaves located on the middle third of the plant should be used. Leaf pubescence refers to general trichomes. **Figure 4** is supplied for examples of leaf silhouette. Leaf stipules are shown in **Figure 5** for visual definition. **Figure 6** is supplied to define leaf characteristics. **Figure 7** should be used to describe terminal and primary leaflet shape. **Figures 8 and 9** are used to describe the terminal and primary leaflet shape of tip and base, respectively. To measure the total number of primary leaflets pairs, collect 10 fully developed petioles (with leaves attached from each replication) and take the average number of secondary and tertiary leaflets. Glandular trichomes should be described in the Additional Comments and Characteristics (Descriptor 15).

Inflorescence characteristics should be measured at early first bloom. **Figures 10, 11 and 12** are supplied to describe anther and stigma shape, respectively. Corolla, calyx, anther, stigma, and pollen should be observed on newly opened flowers. Berry production should be based on field-grown plants rather than greenhouse plants.

Tuber characteristics should be observed following harvest. **Figures 13 and 14** are available to describe distribution of secondary color and tuber shape, respectively.

Disease and pest reactions should be based upon specific tests or statistical analysis rather than just field observations, rating 1 as Highly Resistance and 9 as Highly Susceptible, please follow the scale on each descriptor. Other diseases or pests reactions not requested can be described if it is felt that it would be helpful to determine novelty of the variety.

Quality characteristics should be described according to the market use.

If the plant is transgenic, this gene insertion(s) should be described.

Chemical identification and any other characteristics can be described if they are helpful in distinguishing the variety.

Legend:

V = Application Variety

R1-R4 = Reference Varieties

* = Both the reference variety (ies) and application variety must be described for characteristics designated with an asterisk.

NAME OF APPLICANT (S)	TEMPORARY OR EXPERIMENTAL DESIGNATION	VARIETY NAME
SAKA - RAGIS PFLANZENZUCHT GBR		BALTICA
ADDRESS (Street and No. or RD No., City, State, Zip Code, and Country) PICKHUBEN 2 D-20457 HAMBURG GERMANY		FOR OFFICIAL USE ONLY PVPO NUMBER PV # 9900261

REFERENCE VARIETIES: Enter the reference variety name in the appropriate box.

Application Variety (V)	Reference Variety 1 (R1)	Reference Variety 2 (R2)	Reference Variety 3 (R3)	Reference Variety 4 (R4)
BALTICA	BINTJE			

PLEASE READ ALL INSTRUCTIONS CAREFULLY:

1. MARKET CHARACTERISTICS:

***MARKET CLASS:**
1 = Yellow-flesh Tablestock 2 = Round-white Tablestock 3 = Chip-processing 4 = Frozen-processing
5 = Russet Tablestock 6 = Other _____

V	R1	R2	R3	R4
1	1			

2. LIGHT SPROUT CHARACTERISTICS: (See Figure 1)

***LIGHT SPROUT: GENERAL SHAPE**
1 = Spherical 2 = Ovoid 3 = Conica 4 = Broad cylindrica 5 = Narrow cylindrical 6 = Other

V	R1	R2	R3	R4
3	3			

***LIGHT SPROUT BASE: PUBESCENCE OF TIP**
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	R1	R2	R3	R4
3	4			

***LIGHT SPROUT BASE: ANTHOCYANIN COLORATION**
1 = Green 2 = Red-violet 3 = Blue-violet 4 = Other(describe)

V	R1	R2	R3	R4
2	3			

***LIGHT SPROUT BASE: INTENSITY OF ANTHOCYANIN COLORATION (IF PRESENT)**
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	R1	R2	R3	R4
3	4			

***LIGHT SPROUT TIP: HABIT**
1 = Closed 2 = Intermediate 3 = Open

V	R1	R2	R3	R4
2	1			

2. **LIGHT SPROUT CHARACTERISTICS:** (continued)

LIGHT SPROUT TIP: PUBESCENCE
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	R1	R2	R3	R4
3	4			

LIGHT SPROUT TIP ANTHOCYANIN COLORATION
1 = Green 2 = Red-violet 3 = Blue-violet 4 = Other(describe)

V	R1	R2	R3	R4
1	4			

LIGHT SPROUT TIP: INTENSITY OF ANTHOCANIN COLORATION (IF PRESENT)
1 = Absent 2 = Weak 3 = Medium 4 = Strong 5 = Very Strong

V	R1	R2	R3	R4
2	4			

LIGHT SPROUT ROOT INITIALS: FREQUENCY
1 = Short 2 = Medium 3 = Long

V	R1	R2	R3	R4
2	1			

3. **PLANT CHARACTERISTICS:**

GROWTH HABIT: (See Figure 2)
3 = Erect (>45° with ground) 5 = Semi-erect (30-45° with ground) 7 = Spreading

V	R1	R2	R3	R4
5	3			

TYPE:
1 = Stem (foliage open, stems clearly visible) 2 = Intermediate 3 = Leaf (Foliage closed, stems hardly visible)

V	R1	R2	R3	R4
3	2			

MATURITY: Days after planting (DAP) at vine senescence

V	R1	R2	R3	R4
105	115			

PLANTING DATE:

V	R1	R2	R3	R4
15.04.98	17.04.98			

***REGIONAL AREA:**

V	R1	R2	R3	R4
Dithmarschen	Dithmarschen			

MATURITY CLASS:
1 = Very Early (<100 DAP) 2 = Early (100-110 DAP) 3 = Mid-season (111-120 DAP) 4 = Late (121-130 DAP) 5 = Very Late (>130 DAP).

V	R1	R2	R3	R4
2	3			

4. **STEM CHARACTERISTICS:** Measure at early first bloom

*** STEM ANTHOCYANIN COLORATION:**
1 = Absent 3= Weak 5 = Medium 7 = Strong 9 = Very Strong

V	1	R1	5	R2		R3		R4	

STEM WINGS: (See Figure 3)
1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very Strong

V	5	R1	5	R2		R3		R4	

5. **LEAF CHARACTERISTICS:**

LEAF COLOR: (*Observe fully developed leaves located on middle 1/3 of plant*)
1 = Yellowing-green 2 = Olive-green 3 = Medium Green 4 = Dark Green 5 = Grey-green 6 = Other

V	2	R1	4	R2		R3		R4	

LEAF COLOR CHART VALUE: (Royal Horticulture Society Color Chart) or Munsell Color Chart
(*Observe fully developed leaves located on middle 1/3 of plant and circle the appropriate color chart*)

V	137C	R1	131B	R2		R3		R4	

LEAF PUBESCENCE DENSITY:
1 = Absent 2 = Sparse 3 = Medium 4 = Thick 5 = Heavy

V	2	R1	2	R2		R3		R4	

LEAF PUBESCENCE LENGTH:
1 = None 2 = Short 3 = Medium 4 = Long 5 = Very Long

V	2	R1	2	R2		R3		R4	

(*Note Descriptor #15 can be used to describe the type and length of the glandular trichomes observed.*)

*** LEAF SILHOUETTE:** (See Figure 4)
1 = Closed 3 = Medium 5 = Open

V	5	R1	2	R2		R3		R4	

PETIOLES ANTHOCYANIN COLORATION:
1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very Strong

V	1	R1	3	R2		R3		R4	

LEAF STIPULES SIZE: (Se Figure 5)
1 = Absent 3 = Small 5 = Medium 7 = Large

V	3	R1	3	R2		R3		R4	

TERMINAL LEAFLET SHAPE (See Figures 6 and 7)
1 = Narrowly ovate 2 = Medium Ovate 3 = Broadly Ovate 4 = Lanceolate 5 = Elliptical 6 = Obovate 7 = Oblong 8 = Other

V	2	R1	1	R2		R3		R4	

5. **LEAF CHARACTERISTICS:** (continued)

TERMINAL LEAFLET TIP SHAPE: (See Figures 6 and 8)
1 = Acute 2 = Cuspidate 3 = Acuminate 4 = Obtuse 5 = Other

V	3	R1	3	R2		R3		R4	

* **TERMINAL LEAFLET BASE SHAPE:** (See Figure 9)
1 = Cuneate 2 = Acute 3 = Obtuse 4 = Cordate 5 = Truncate 6 = Lobed 7 = Other

V	3	R1	2	R2		R3		R4	

TERMINAL LEAFLET MARGIN WAVINESS:
1 = Absent 2 = Slight 3 = Weak 4 = Medium 5 = Strong

V	2	R1	2	R2		R3		R4	

NUMBER OF PRIMARY LEAFLET PAIRS: (See Figure 6)

AVERAGE:

V	3	R1	3,5	R2		R3		R4	

RANGE:

V	2 to 3	R1	3 to 5	R2	to	R3	to	R4	to

PRIMARY LEAFLET TIP SHAPE: (See Figures 6 and 8)
1 = Acute 2 = Cuspidate 3 = Acuminate 4 = Obtuse 5 = Other

V	3	R1	3	R2		R3		R4	

PRIMARY LEAFLET SIZE:
1 = Very Small 2 = Small 3 = Medium 4 = Large 5 = Very Large

V	3	R1	4	R2		R3		R4	

PRIMARY LEAFLET SHAPE: (See Figures 6 and 7)
1 = Narrowly ovate 2 = Medium ovate 3 = Broadly ovate 4 = Lanceolate 5 = Elliptical 6 = Ovate 7 = Oblong 8 = Other

V	1	R1	2	R2		R3		R4	

PRIMARY LEAFLET BASE SHAPE: (See Figures 6 and 9)
1 = Cuneate 2 = Acute 3 = Obtuse 4 = Cordate 5 = Truncate 6 = Lobed 7 = Other

V	3	R1	2	R2		R3		R4	

NUMBER OF SECONDARY AND TERTIARY LEAFLET PAIRS: (See Figure 6)

AVERAGE:

V	6	R1	6,3	R2		R3		R4	

RANGE:

V	2 to 7	R1	4 to 8	R2	to	R3	to	R4	to

5. LEAF CHARACTERISTICS: (continued)

NUMBER OF INFLORESCENCE/PLANT:

AVERAGE:

V	R1	R2	R3	R4
3	1,2			

RANGE:

V	R1	R2	R3	R4
0 to 4	0 to 2	to	to	to

NUMBER OF FLORETS/INFLORESCENCE:

AVERAGE:

V	R1	R2	R3	R4
7	3,3			

RANGE:

V	R1	R2	R3	R4
5 to 9	2 to 5	to	to	to

* COROLLA INNER SURFACE COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Measure predominant color of newly open flower and circle the appropriate color chart)

V	R1	R2	R3	R4
155 B	155 D			

* COROLLA OUTER SURFACE COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Measure predominant color of newly open flower and circle the appropriate color chart)

V	R1	R2	R3	R4
155 B	155 D			

* COROLLA INNER SURFACE COLOR: (Measure predominant color of newly open flower)
1 = White 2 = Red-violet 3 = Blue-violet 4 = Other

V	R1	R2	R3	R4
1	1			

COROLLA SHAPE: (See Figure 10)
1 = Very rotate 2 = Rotate 3 = Pentagonal 4 = Semi-stellate 5 = Stellate

V	R1	R2	R3	R4
4	3			

6. INFLORESCENCE CHARACTERISTICS:

CALYX ANTHOCYANIN COLORATION:
1 = Absent 3 = Weak 5 = Medium 7 = Strong 9 = Very strong

V	R1	R2	R3	R4
1	1			

ANTHER COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsel Color Chart (Measure when newly opened flower is fully expanded and circle the appropriate color chart)

V	R1	R2	R3	R4
21A	21A			

6. **INFLORESCENCE CHARACTERISTICS:** (continued)

ANTHER SHAPE: (See Figure 11)
1 = Broad cone 2 = Narrow cone 3 = Pear-shaped cone 4 = Loose 5 = Other

V	2	R1	2	R2		R3		R4	

POLLEN PRODUCTION:
1 = None 3 = Some 5 = Abundant

V	5	R1	3	R2		R3		R4	

STIGMA SHAPE: (See Figure 12)
1 = Capitate 2 = Clavate 3 Bi-lobed

V	1	R1	1	R2		R3		R4	

STIGMA COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsel Color Chart (Circle the appropriate color chart)

V	139 B	R1	141 C	R2		R3		R4	

BERRY PRODUCTION: (Under field conditions)
1 = Absent 3 = Low 5 = Moderate 7 = Heavy 9 = Very Heavy

V	5	R1	3	R2		R3		R4	

7. **TUBER CHARACTERISTICS:**

* **PREDOMINANT SKIN COLOR:**
1 = White 2 = Light Yellow 3 = Yellow 4 = Buff 5 = Tan 6 = Brown 7 = Pink 8 = Red 9 = Purplish-red
10 = Purple 11 = Dark purple-black 12 = Other

V	3	R1	3	R2		R3		R4	

PREDOMINANT SKIN COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Circle the appropriate color chart)

V	162 B	R1	20 C	R2		R3		R4	

SECONDARY SKIN COLOR:
1 = Absent 2 = Present (please describe)

V	1	R1	1	R2		R3		R4	

SECONDARY SKIN COLOR CHART VALUE: Royal Horticulture Society Color Chart or Munsell Color Chart (Circle the appropriate color)

V	—	R1	—	R2		R3		R4	

SECONDARY SKIN COLOR DISTRIBUTION: (See Figure 13)
1 = Eyes 2 = Eyebrows 3 = Splashed 4 = Scattered 5 = Spectacled 6 = Stippled 7 = Other

V	—	R1	—	R2		R3		R4	

SKIN TEXTURE:
1 = Smooth 2 = Rough (flaky) 3 = Netted 4 = Russetted 5 = Heavily russetted 6 = Other

V	2	R1	2	R2		R3		R4	

7. TUBER CHARACTERISTICS: (continued)

* TUBER SHAPE: (See Figure 14)
1 = Compressed 2 = Round 3 = Oval 4 = Oblong 5 = Long 6 = Other

V	R1	R2	R3	R4
3	4			

TUBER THICKNESS:
1 = Round 2 = Medium thic k 3 = Slightly flattened 4 = Flattened 5 = Other

V	R1	R2	R3	R4
2	2			

TUBER LENGTH (mm):

AVERAGE:

V	R1	R2	R3	R4
60	73			

RANGE:

V	R1	R2	R3	R4
37 to 87	55 to 91	to	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
12	16			

AVERAGE WEIGHT OF SAMPLE TAKEN:

V	R1	R2	R3	R4
59	87			

TUBER WIDTH (mm)

AVERAGE:

V	R1	R2	R3	R4
43	53			

RANGE:

V	R1	R2	R3	R4
27 to 58	38 to 72	to	to	to

STANDARD DEVIATION:

V	R1	R2	R3	R4
7	13			

AVERAGE WEIGHT OF SAMPLE TAKEN (g):

V	R1	R2	R3	R4
59	87			

7. TUBER CHARACTERISTICS: (continued)

TUBER THICKNESS (mm):

AVERAGE:

V	36	R1	47	R2		R3		R4	

RANGE:

V	21 to 48	R1	35 to 64	R2	to	R3	to	R4	to

STANDARD DEVIATION:

V	6	R1	12	R2		R3		R4	

AVERAGE WEIGHT OF SAMPLE TAKEN (g):

V	59	R1	87	R2		R3		R4	

TUBER EYE DEPTH:

1 = Protruding 3 = Shallow 5 = Intermediate 7 = Deep 9 = Very deep

V	3	R1	3	R2		R3		R4	

TUBER LATERAL EYES:

1 = Protruding 3 = Shallow 5 = Intermediate 7 = Deep 9 = Very deep

V	3	R1	3	R2		R3		R4	

NUMBER EYE/TUBER:

AVERAGE:

V	6,3	R1	5,6	R2		R3		R4	

RANGE:

V	4 to 9	R1	3 to 8	R2	to	R3	to	R4	to

DISTRIBUTION OF TUBER EYES:

1 = Predominantly apical 2 = Evenly distributed

V	2	R1	2	R2		R3		R4	

PROMINENCE OF TUBER EYEBROWS:

1= Absent 2 = Slight prominence 3 = Medium prominence 4 = Very prominent 5 = Other

V	2	R1	2	R2		R3		R4	

7. TUBER CHARACTERISTICS: (continued)

PRIMARY TUBER FLESH COLOR CHART VALUE: Royal Horticulture Society Color Chart of Munsell Color Chart

V	3D	R1	159B	R2		R3		R4	

SECONDARY TUBER FLESH COLOR:

1 = Absent 2 = Present, please describe: _____

V	1	R1	1	R2		R3		R4	

SECONDARY TUBER FLESH COLOR CHART VALUE: Royal Horticulture Society Color Chart of Munsell Color Chart

V	—	R1	—	R2		R3		R4	

NUMBER OF TUBERS/PLANT:
1 = Low (<8) 2 = Medium (8-15) 3 = High (>15)

V	3	R1	2	R2		R3		R4	

8. DISEASES CHARACTERISTICS:

DISEASES REACTION: 0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lessions in Number and Size 4 = Moderately Resistance 5 = Intermedia Susceptible 6 = Moderate Susceptible 7 = Susceptible 9 = Highly Susceptible

LATE BLIGHT: (Phytophthora)

V	3	R1	7	R2		R3		R4	

EARLY BLIGHT: (Alternaria)

V	0	R1	3	R2		R3		R4	

SOFT ROT (Erwinia)

V	2	R1	3	R2		R3		R4	

COMMON SCAB (Streptomyces

V	4	R1	5	R2		R3		R4	

POWDERY SCAB (Spongospora)

V	0	R1	2	R2		R3		R4	

DRY ROT (Fusarium)

V	0	R1	0	R2		R3		R4	

POTATO LEAF ROLL VIRUS (PLRV)

V	3	R1	7	R2		R3		R4	

8. DISEASES CHARACTERISTICS: (continued)

POTATO LEAF ROLL VIRUS (PLRV)

V	3	R1	7	R2		R3		R4	

POTATO VIRUS X (PVX)

V	0	R1	3	R2		R3		R4	

POTATO VIRUS Y (PVY)

V	2	R1	7	R2		R3		R4	

POTATO VIRUS M (PVM)

V	0	R1	5	R2		R3		R4	

POTATO VIRUS A (PVA)

V	1	R1	5	R2		R3		R4	

GOLDEN NEMATODE (Globodera)

Ro 1,4

V	1	R1	9	R2		R3		R4	

ROOT – KNOT NEMATODE (Meloidogyne)

V	0	R1	0	R2		R3		R4	

OTHER DISEASE

V	–	R1	–	R2		R3		R4	

OTHER DISEASE

V	–	R1	–	R2		R3		R4	

9. PESTS CHARACTERISTICS:

PEST REACTION: 0 = Not Tested 1 = Highly Resistant 2 = Resistant Few Symptoms 3 = Resistance Few Lessions in Number and Size 4 = Moderately Resistance 5 = Intermedia Susceptible 6 = Moderate Susceptible 7 = Susceptible 9 = Highly Susceptible

COLORADO POTATO BEETLE (CPB) (*Leptinotarsa*)

V	0	R1	0	R2		R3		R4	

GREEN PEACH APHID (*Myzus*)

V	0	R1	0	R2		R3		R4	

OTHER:

V	–	R1	–	R2		R3		R4	

10. GENE TRAITS:

INSERTION OF GENES: 1 = YES 2 = NO ☐

IF YES, describe the gene(s) introduced or attach information:

11. QUALITY CHARACTERISTICS:

CHIEF MARKET:

SPECIFIC GRAVITY (wt. air/wt. air – wt. water)
1 = <1.060 2 = 1.060-1.069 3 = 1.070-1.079 4 = 1.080-1.089 5 = >1.090

V	4	R1	4	R2		R3		R4	

TOTAL GLYCOALKALOID CONTENT (mg./100 g. fresh tuber)

V		R1		R2		R3		R4	

OTHER QUALITY CHARACTERISTICS: Describe any other quality characteristics that may aid in identification, (e.g., chip-processing, french fry processing, baking, boiling, after-cooking darkening). Please attach data and corresponding protocol.

early ware (boiling)
early French fries processing

12. CHEMICAL IDENTIFICATION:

Describe chemical traits of the candidate variety that aid in its identification (e.g., protien or DSN electrophoresis). Please attach data and the corresponding protocol.

13. FINGER PRINTING MARKERS:

ISOZYMES 1 = YES 2 = NO [2]

IF YES, attach information

14. DNA PROFILE: 1 = YES 2 = NO [2]

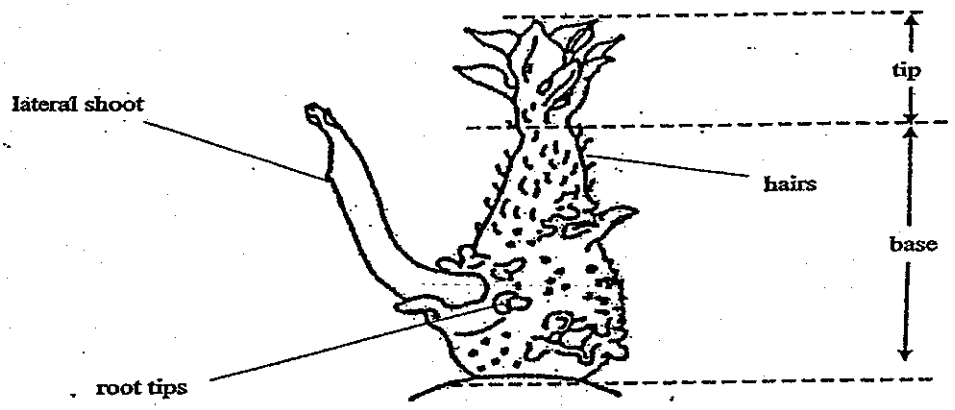
IF YES, attach information

15. ADDDITIONAL COMMENTS AND CHARACTERISTICS:

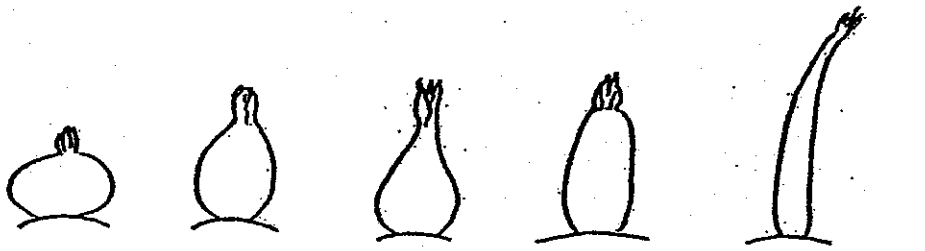
Include any additional descriptors that would be useful in distringuishing the candidate variety.

Figure 1: Light sprout

Light sprout dissection

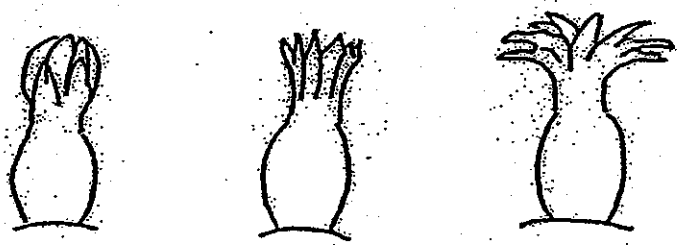


Light sprout shape



1 spherical | 2 ovoid | 3 conical | 4 broad cylindrical | 5 narrow cylindrical

Light sprout tip habit

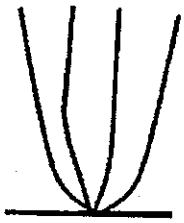


1 closed | 2 intermediate | 3 open

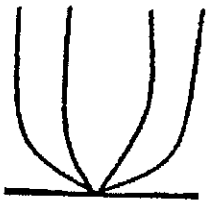
The characteristic should be observed after about 10 weeks to obtain a good differentiation in the collection.

Figure 2: Growth Habit

Erect



Semi Erect

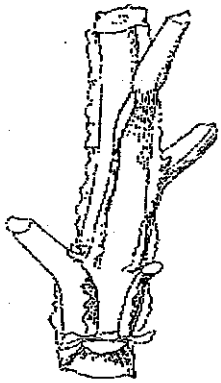


Spreading

Figure 3: Stem Wings

Weak

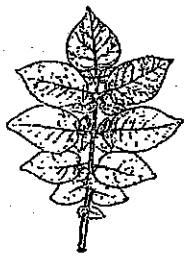
Medium



Strong

Figure 4: Leaf Sillhouette

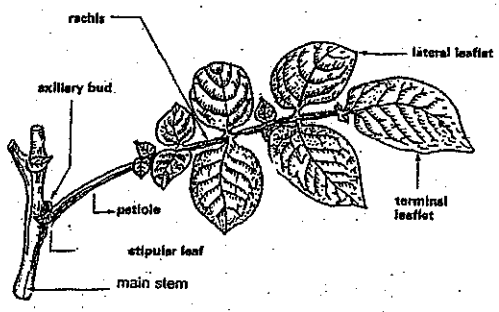
Closed



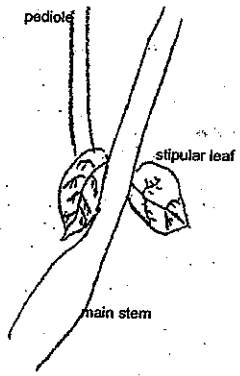
Medium

Open

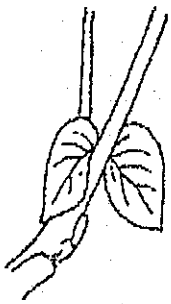
Figure 5: Leaf Stipules



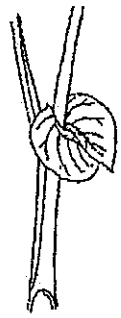
General structures



Small stipular leaf



Medium stipular leaf



Large stipular leaf

Figure 6: Leaf Dissection

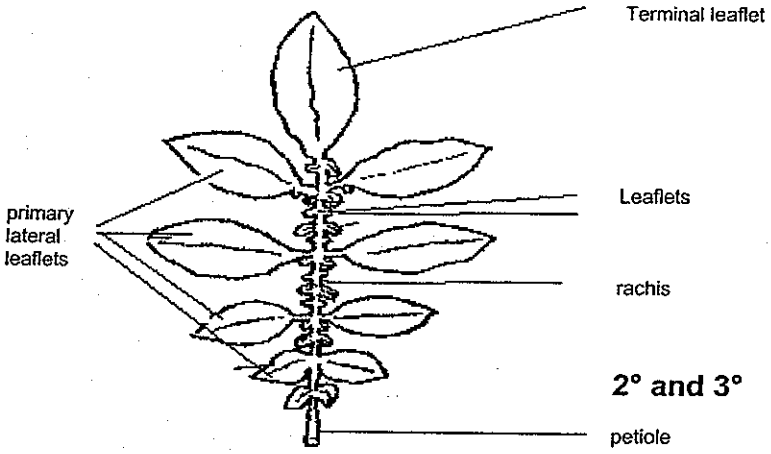


Figure 7: Terminal Leaflet Shape/Primary Leaflet Shape

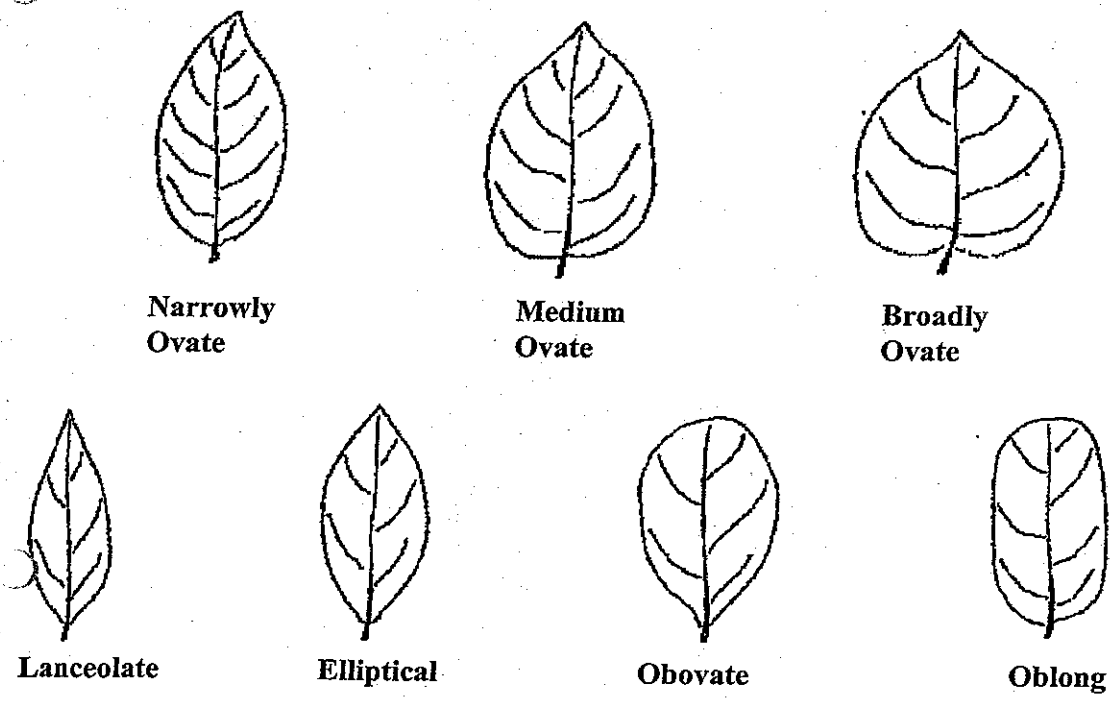


Figure 8: Terminal Leaflet Shape of Tip/Primary Leaflet Shape of Tip

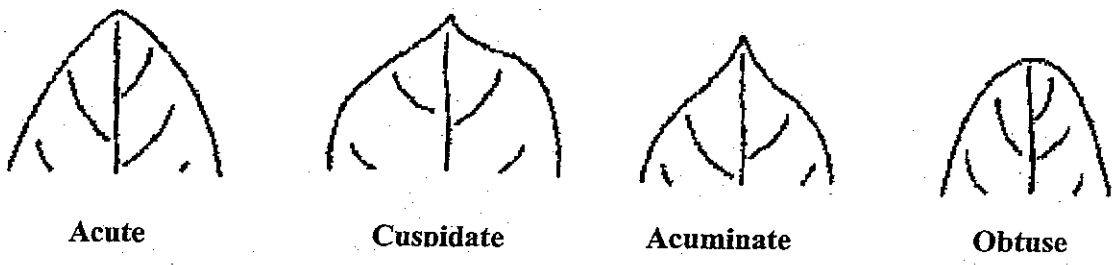


Figure 9: Terminal Leaflet Shape of Base/Primary Leafelet Shape of Base

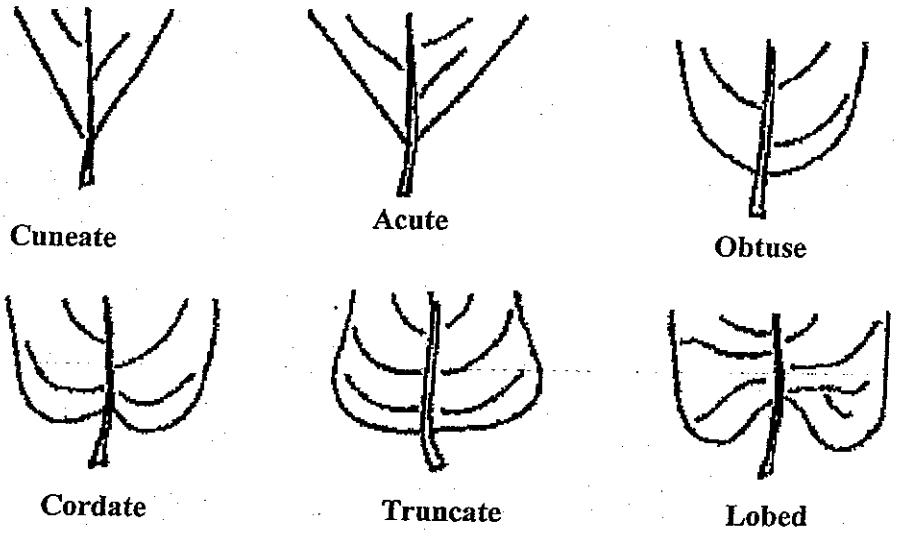


Figure 10: Corolla Shape

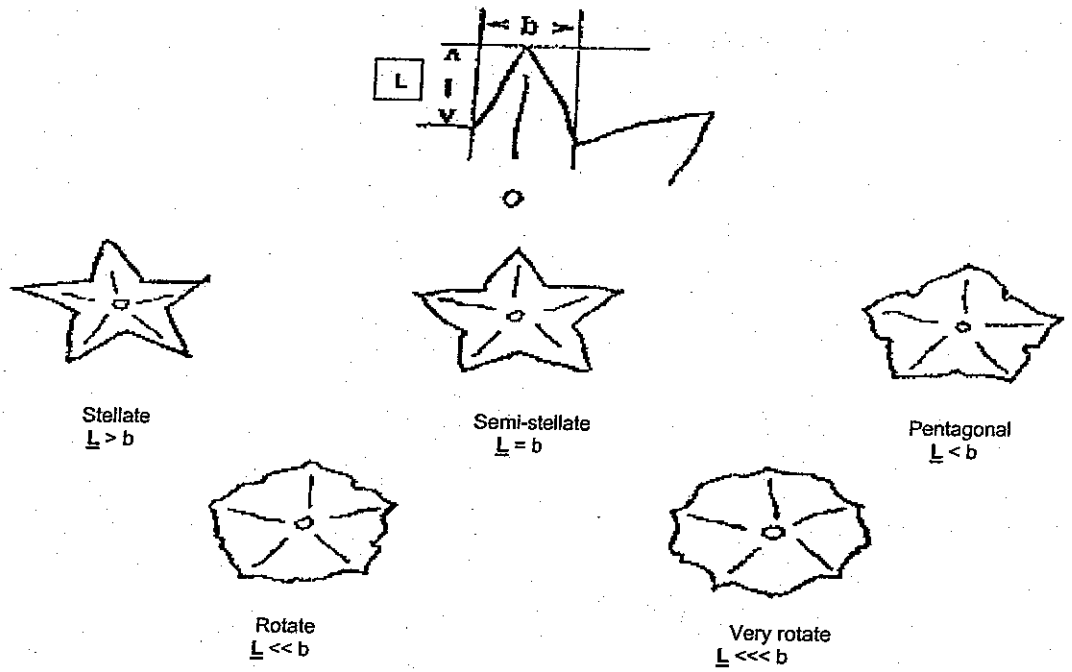


Figure 11: Anther Shape

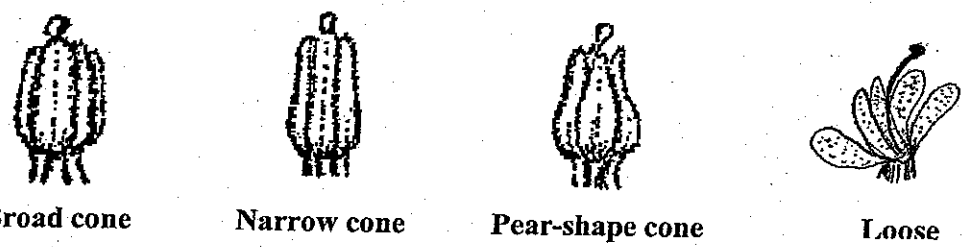


Figure 12: Stigma Shape

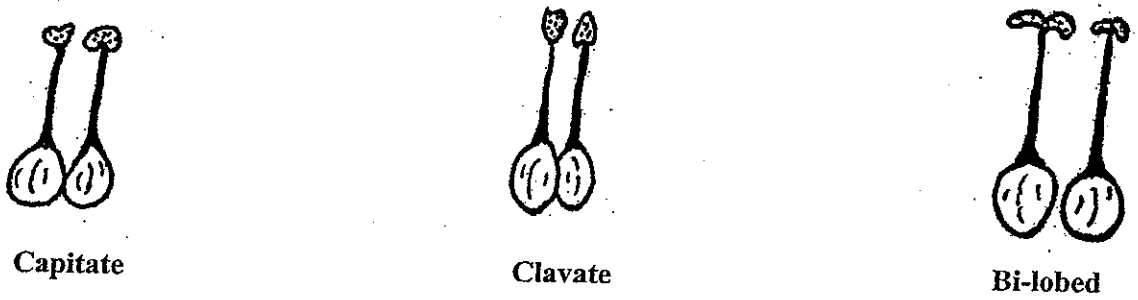


Figure 13: Distribution of Secondary Skin Tuber Color

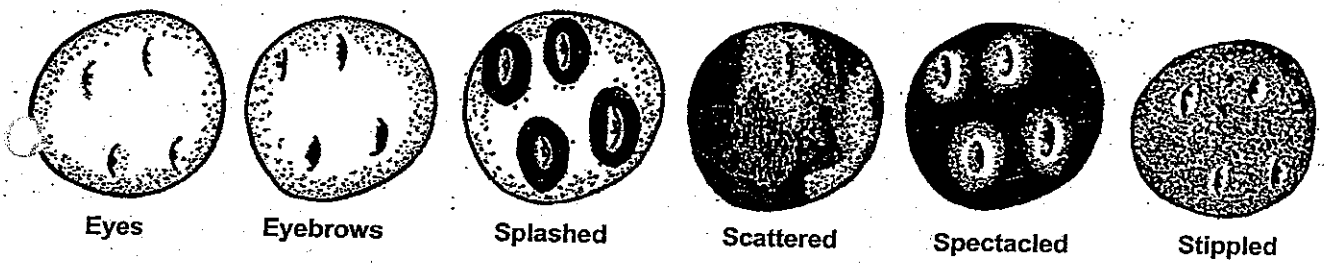
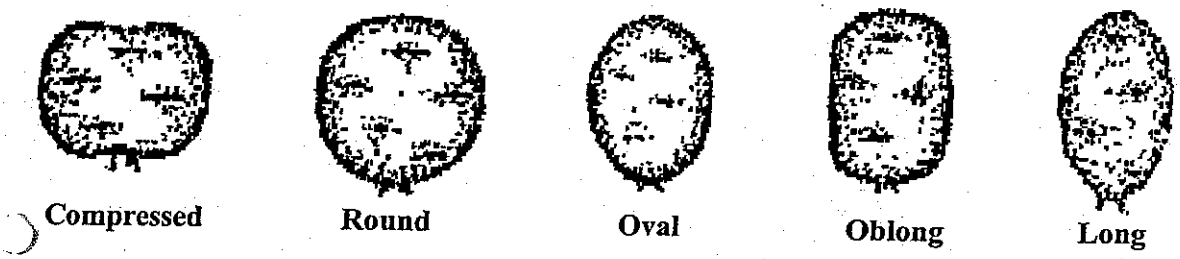


Figure 14: Tuber Shape



References:
Huaman, Z. 1986. Systematic botany and morphology of the potato. Technical information Bulletin 6. International Potato Center, Lima, Peru.

Huaman, Z., Williams, J.T., Salhuana, W. and Vincent, L. Descriptors for the cultivated potato and the maintenance and distribution of germplasm collections. 1977. International Board for Plant Genetic Resources. Rome, Italy.

Potato (*Solanum tuberosum* L.) Guidelines for the conduct of tests for distinctness, uniformity and stability. International union for the protection of new varieties of plants (UPOV). 2004-03-31.

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VII. Table of Characteristics/Tableau des caractères/Merkmalstabelle

	Characteristics Caractères Merkmale	Stage[1] Stade[1] Stadium[1]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
1. (+)	Lightsprout: size Germe: taille Lichtkeim: Grösse	1	small	petite	klein	Golden Wonder, Resident	3
			medium	moyenne	mittel	Pentland Dell	(5)
			large	grande	gross	Home Guard, Palma	7
(*) 2. (+)	Lightsprout: shape Germe: forme Lichtkeim: Form	1	spherical	sphérique	kugelförmig	Alpha, Armen	1
			ovoid	ovoïde	eiförmig	Tylva	2
			conical	conique	kegelförmig	Pentland Dell	(3)
			broad cylindrical	cylindrique large	breit zylindrisch	Pepita, Arran Victory	4
			narrow cylindrical	cylindrique étroite	schmal zylindrisch	Spunta, Pentland Squire	5
(*) 3.	Lightsprout: anthocyanin coloration of base Germe: pigmentation anthocyanique de la base Lichtkeim: Anthocyanfärbung des Unterteils	1	red-violet	violet-rouge	rot-violett	Sirtema	(1)
			blue-violet	violet-bleu	blau-violett	Bintje	2
(*) 4.	Lightsprout: intensity of anthocyanin coloration of base Germe: intensité de la pigmentation anthocyanique de la base Lichtkeim: Stärke der Anthocyanfärbung des Unterteils	1	very weak	très faible	sehr gering	Estima	1
			weak	faible	gering	Kennebec	3
			medium	moyenne	mittel	Désirée	(5)
			strong	forte	stark	Kerr's Pink, Nicola	(7)
			very strong	très forte	sehr stark	Montana	9
(*) 5.	Lightsprout: pubescence of base Germe: pilosité de la base Lichtkeim: Behaarung des Unterteils	1	very weak	très faible	sehr gering	Croft	1
			weak	faible	gering	Pentland Dell	3
			medium	moyenne	mittel	Claustar	(5)
			strong	forte	stark	Eersteling	7
			very strong	très forte	sehr stark	Dunluce Revelino	9

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Characteristics Caractères Merkmale	Stage[1] Stade[1] Stadium[1]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
6. Lightsprout: size of tip	1	very small	très petit	sehr klein	Allerfrüheste Gelbe, Maris Piper	1
Germe: taille du sommet		small	petit	klein	Famosa	(3)
Lichtkeim: Grösse des Oberteils		medium	moyen	mittel	Regale	(5)
		large	grand	gross	Marlene	7
		very large	très grand	sehr gross	Home Guard, Prumex	9
7. (+) Lightsprout: habit of tip	1	closed	fermé	geschlossen	Désirée, Estima	(3)
Germe: aspect du sommet		medium	moyen	mittel	Catriona, Eersteling	(5)
Lichtkeim: Form des Oberteils		open	ouvert	offen	Arran Pilot	
8. Lightsprout: intensity of anthocyanin coloration of tip	1	very weak	très faible	sehr gering	Estima	(1)
Germe: intensité de la pigmentation anthocyanique du sommet		weak	faible	gering	Maris Piper	(3)
		medium	moyenne	mittel	Désirée	5
		strong	forte	stark	Maris Peer	7
Lichtkeim: Stärke der Anthocyanfärbung des Oberteils		very strong	très forte	sehr stark	Montana, Red Craig's Royal	9
9. Lightsprout: pubescence of tip	1	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Maris Piper, Resident	1
Germe: pilosité du sommet		weak	faible	gering	Ulster Sceptre	3
		medium	moyenne	mittel	Bintje	(5)
Lichtkeim: Behaarung des Oberteils		strong	forte	stark	Vanessa	7
		very strong	très forte	sehr stark	Alcmaria, Sientje	9
10. Lightsprout: number of root tips	1	few	petit	gering	Red Craigs Royal	3
Germe: nombre des radicelles		medium	moyen	mittel	Apollo	(5)
		many	grand	gross	Mentor, Ulster Premier	7
Lichtkeim: Anzahl der Wurzelhöcker						
11. Lightsprout: protrusion of lenticels	1	weak	faible	gering	Resonant	3
Germe: protubérance des lenticelles		medium	moyenne	mittel	Gloria	5
		strong	forte	stark	Tertus	7
Lichtkeim: Herausragen der Lentizellen						

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Characteristics Caractères Merkmale	Stage[1] Stade[1] Stadium[1]	English	français	deutsch	Example Varieties Exemples Beispielssorten	Note
12. Lightsprout: length of (+) lateral shoots Germe: longueur des ramifications latérales Lichtkeim: Länge der Seitentriebe	1	short	courtes	kurz	Marlene, Record	3
		medium	moyennes	mittel	Kerr's Pink, Nicola	(5)
		long	longues	lang	Stella, Ulster Sceptre	7
13. Plant: height Plante: hauteur Pflanze: Höhe	2	very short	très basse	sehr niedrig	Civa	1
		short	basse	niedrig	Arran Pilot	3
		medium	moyenne	mittel	Bintje, Désirée	5
		tall	haute	hoch	King Edward	7
		very tall	très haute	sehr hoch	Kerr's Pink	9
14. (+) Plant: type Plante: type Pflanze: Typ	2	stem-type	rameux	Stengeltyp	Baraka, Pentland Dell	1
		intermediate type	intermédiaire	Zwischentyp	Apollo, Désirée	2
		leaf-type	feuillu	Blattyp	Corine, Record	3
15. (+) Plant: growth habit Plante: port Pflanze: Wuchsform	2	erect	dressé	aufrecht	Kerr's Pink, Radosa	3
		semi-erect	demi-dressé	halbaufrecht	Danae, King Edward	(5)
		spreading	étalé	breitwüchsig	Arran Banner, Delica	7
16. Stem: thickness of main stem Tige: épaisseur de la tige principale Stengel: Dicke des Hauptstengels	2	thin	mince	dünn	Home Guard	3
		medium	moyenne	mittel	Désirée	5
		thick	épaisse	dick	Dunbar Standard, Thomana	7
(*) 17. Stem: extension of anthocyanin coloration Tige: extension de la pigmentation anthocyanique Stengel: Ausbreitung der Anthocyanfärbung	2	absent or very weak	nulle ou très faible	fehlend oder sehr gering	Famosa	(1)
		weak	faible	gering	Pentland Crown	3
		medium	moyenne	mittel	Bintje, Pentland Dell	5
		strong	forte	stark		7
		very strong	très forte	sehr stark	Arran Victory	9
18. (+) Leaf: size Feuille: taille Blatt: Grösse	2	very small	très petite	sehr klein	Cara	1
		small	petite	klein	Allerfrüheste Gelbe, Kingston	3
		medium	moyenne	mittel	Majestic	5
		large	grande	gross	Kennebec, Manna	7
		very large	très grande	sehr gross	Up-to-Date	9

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE

EXHIBIT E
STATEMENT OF THE BASIS OF OWNERSHIP

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S)	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER	3. VARIETY NAME
SAKA-RAGIS Pflanzenzucht GbR	90-241-2	BALTICA

4. ADDRESS *(Street and No., or R.F.D. No., City, State, and ZIP, and Country)*	5. TELEPHONE *(include area code)*	6. FAX *(include area code)*
Kielortallee 9 D-20144 Hamburg Tederal Republic of Germany	++(49) - 40- 44 61 67	++(49) - 40 - 41 77 16
	7. PVPO NUMBER PV # 9900261	

8. Does the applicant own all rights to the variety? *Mark an "X" in appropriate block.* If no, please explain. [X] YES [ ] NO

9. Is the applicant (individual or company) a U.S. national or U.S. based company? [ ] YES [XX] NO
If no, give name of country Federal Republic of Germany

10. Is the applicant the original owner? [XX] YES [ ] NO *If no, please answer one of the following:*

a. If original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. national(s)?

[ ] YES [ ] NO If no, give name of country

b. If original rights to variety were owned by a company(ies), is(are) the original owner(s) a U.S. based company?

[ ] YES [ ] NO If no, give name of country

11. Additional explanation on ownership *(if needed, use reverse for extra space)*:

see attached certificate on the grant of community Plant variety rights

PLEASE NOTE:

Plant variety protection can be afforded only to owners (not licensees) who meet one of the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.

2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.

3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definition.

STD-470-E (07-97) *(Destroy previous editions).*
Electronic version designed using WordPerfect InForms by USDA-AMS-IMB.

9900261

SAKA-RAGIS PFLANZENZUCHT GBR

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Telefax (040) 44 85 85

Commerzbank AG, Hamburg
(BLZ 200 400 00)
Konto-Nr. 37 380 28

Ihr Zeichen	Ihre Nachricht	Unser Zeichen	Datum
		Of	23.03.99

Exhibit E

Statement of the Basis of the Applicant's Ownership

we, SAKA-RAGIS Pflanzenzucht GbR, herewith state, that the potato variety BALTICA was bred at our breeding station in Windeby, Schleswig-Holstein, Germany

by cross breeding A x B

Agria x van Gogh

last crossing in 1988

BALTICA is listed in Germany under reference number K 3225 and protected in the European Union under reference number EU 2669 in the name of SAKA-RAGIS Pflanzenzucht GbR.

Date: .....23.03.99..... Signature: SAKA-RAGIS PFLANZENZUCHT GBR .....

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SAKA-RAGIS PFLANZENZUCHT GBR

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Ihr Zeichen	Ihre Nachricht	Unser Zeichen	Datum
		Of	23.03.99

Voucher Sample

We, SOLANA Agrarprodukte GmbH & CO.KG, herewith confirm, that we will send in February/March 1999 on behalf of SAKA-RAGIS Pflanzenzucht GbR each 6 tubes with tissue culture plants of the potato variety

BALTICA

to

U.S. Department of Agriculture
Animal and Plant Health Inspection Service
Plant Protection and Quarantine Programs
Plant Germplasm Quarantine Center
Building 5800, BARC-E
Beltsville, MD 20705 U.S.A.

Date: .....23.03.99.....

Signature: SAKA-RAGIS PFLANZENZUCHT GbR .....

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09900261

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info@saka-ragis.de
www.saka-ragis.de

Authorisation of Agent

We, SAKA-RAGIS Pflanzenzucht GbR hereby authorise:

HANSE SEED CORP.
Mr. John Thomas Düsing
803, Nandina Dr.
Weston, Fl, 33327
U.S.A.

to sign any application, notice or other document given, delivered to or served upon the Plant Variety Protection Office, U.S. Department of Agriculture, in our name for the potato (Solanum tuberosum L.) variety

BALTICA

Signature _____
Waldemar Schuller, Managing Director

Hamburg, 15.09.2005

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